UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,408	03/15/2001	Jennifer Anne Dervin	IBM / 181	3577

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EXAMINER
CHUNG, CHI WHAN

ART UNIT	PAPER NUMBER
2115	5

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.		Applicant(s)	
Office Action Summary	09/809,408	●	DERVIN ET AL.	
	Examiner		**Art Unit**	
	Chi Whan Chung		2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2001*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 4, 6 - 7, 12 - 13, 15, 17 - 22, 24, 29 - 30, 32 - 38* is/are rejected.

7)☒ Claim(s) *5, 8 - 11, 14, 16, 23, 25 - 28, 31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _2_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 1-04)　　　　　　　Office Action Summary　　　　　　　Part of Paper No./Mail Date 4

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1 – 4, 17 – 22, 24, 29 – 30, 32 – 33, 34 - 38 are rejected under 35 U.S.C.

103(a) as being unpatentable over Moiin et al., patent no. 6,192,483, and Fuchs et al.,

patent no. 5,590,277.

3.   As per claim 1, **Fuchs et al.** teach a method of restarting a node in a clustered

computer system, wherein the clustered computer system hosts a group including first

and second members that reside respectively on first and second nodes, the method

comprising:

(a) in response to a clustering failure (col. 13 lines 10 – 15) on the first node,

notifying the second node of the group using the second member (col. 13 lines 11 – 12);

and

(b) in response to the notification (col. 13 lines 10 – 15), initiating a restart (col.

13 lines 19 – 20) of the first node using the second member (col. 13 lines 19 – 20).

Fuchs et al. do not teach a method comprising:

in response to a clustering failure on the first node, notifying the second member of the group using the first member.

Moiin et al. teach a method for a clustered computer system, wherein the clustered computer system hosts a group including first and second members that reside respectively on first and second nodes, the method comprising:

in response to a clustering failure on the first node, notifying the second member of the group using the first member (col. 10 lines 36 – 39, and col. 5 lines 27 – 38)

It would have been obvious to one of ordinary skill in the art to combine Moiin et al.'s method with Fuchs et al.'s method. Fuchs et al.'s method is motivated to minimize the amount of time lost in restarting a node (col. 2 lines 3 – 4). Self-notification by the failing node itself saves more time compared to the notification of a failure by a member of a different node. And Moiin et al. teach the method of self-notification by the failing node itself.

4.   As per claim 2, Fuchs et al. teach the method of claim 1, wherein the group comprises a cluster control group (col. 13 lines 11 – 12) that includes a member (col. 13 lines 11 – 12) on each node (col. 13 lines 3 – 4) participating in clustering in the clustered computer system (col. 13 liens 3 – 4), and wherein the first and second members are each members of the cluster control group (col. 13 lines 3 – 4).

5.   As per claim 3, Moiin et al. teach the method of claim 1, wherein notifying the

second member comprises issuing a membership change request to the group using

the first member (col. 10 lines 36 – 39, and col. 5 lines 30 – 34).

6.   As per claim 4, Fuchs et al. in view of Moiin et al. teach the method of claim 3,

wherein issuing the membership change request includes indicating in association with

the membership change request that the membership change request is for the purpose

of restarting the first node.

        Moiin et al. teach a process that causes a reconfiguration of a cluster

configuration (col. 10 lines 37 – 38) when a node fails, which inherently includes the

membership change of the failing node.

        Fuchs et al. teach a method that detects a failure of a first node by a member of

a second node, which is followed by the restart of the first node by the member of the

second node.

        Therefore, it would have been obvious to one of ordinary skill in the art to

combine Moiin et al.'s method with Fuchs et al.'s method so that the membership

change request would be issued for the purpose of restarting the first node.

7.   As per claims 17 – 22, since they recite the apparatus on which the methods are

operated, they are rejected accordingly based on the rejection of the method claims.

8.   As per claims 24, 29 – 30, and 32 – 33, since they recite the system on which the

methods are operated, they are rejected accordingly based on the rejection of the

method claims.

9.   As per claims 34 –38, since they recite the program products on which the

methods are operated, they are rejected accordingly based on the rejection of the

method claims.

10.   Claims 6 – 7, 12 – 13, and 15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Moiin et al., patent no. 6,192,483, Fuchs et al., patent no. 5,590,277,

and Huang, patent no. 5,748,882.

11.   As per claim 6, Fuchs et al. in view of Moiin et al. teach all of claim 1.

        Huang teaches a method wherein initiating the restart includes issuing a start

node request to the group using the second member (see Abstract).

12.   As per claim 7, Huang teaches the method of claim 6, wherein issuing the start

node request (see Abstract) includes indicating in association with the start node

request that the start node request is fore the purpose of restarting the first node (col. 2 lines 30 – 35, and col. 5 lines 1 – 19).

13. As per claim 12, Moiin et al. teach the method of claim 6, further comprising, in response to the clustering failure on the first node, terminating clustering on the first node (col. 10 lines 38 – 39) after notifying the second member (col. 10 lines 36 – 39, and col. 5 lines 27 – 38) of the group using the first member (col. 10 line 36).

14. As per claim 13, Huang teaches the method of claim 1, further comprising, in response to the notification, selecting the second member (col. 5 lines 13 – 14) from a plurality of members (col. 4 lines 66 – 67) in the group to initiate the restart (col. 23 lines 60 – 64) of the first node.

15. As per claim 15, since it recites the method which is the combination of methods from claims 1 –4, and 6 –7, it is rejected accordingly based on the rejection of the claims 1- 4, and 6 – 7.

Allowable Subject Matter

16. Claims 5, 8 – 11, 14, 16, 25 – 28, and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
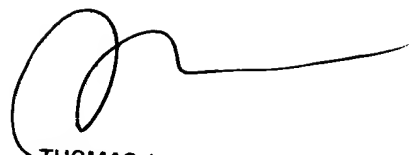
Conclusion

17.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chi Whan Chung whose telephone number is (703)305-8788. The examiner can normally be reached on Monday~Friday 9:00am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703)305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.C.

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